**Exercise 3: Stored Procedures**

**Scenario 1:** The bank needs to process monthly interest for all savings accounts.

**Question:** Write a stored procedure **ProcessMonthlyInterest** that calculates and updates the balance of all savings accounts by applying an interest rate of 1% to the current balance.

CREATE OR REPLACE PROCEDURE ProcessMonthlyInterest IS

BEGIN

UPDATE savings\_accounts

SET balance = balance + (balance \* 0.01);

COMMIT;

END;

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**Scenario 3:** Customers should be able to transfer funds between their accounts.

**Question:** Write a stored procedure **TransferFunds** that transfers a specified amount from one account to another, checking that the source account has sufficient balance before making the transfer.

CREATE OR REPLACE PROCEDURE TransferFunds (

source\_account\_id IN NUMBER,

dest\_account\_id IN NUMBER,

amount IN NUMBER

)

IS

insufficient\_balance EXCEPTION;

source\_balance NUMBER;

BEGIN

SELECT balance INTO source\_balance

FROM accounts

WHERE account\_id = source\_account\_id;

IF source\_balance < amount THEN

RAISE insufficient\_balance;

END IF;

UPDATE accounts

SET balance = balance - amount

WHERE account\_id = source\_account\_id;

UPDATE accounts

SET balance = balance + amount

WHERE account\_id = dest\_account\_id;

COMMIT;

dbms\_output.put\_line('Transfer successful: ' || amount || ' transferred from account '

|| source\_account\_id || ' to account ' || dest\_account\_id);

EXCEPTION

WHEN insufficient\_balance THEN

dbms\_output.put\_line('Error: insufficient balance in source account.');

ROLLBACK;

END;

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EXEC TransferFunds(1, 2, 2000);

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